

# SULFITES CONCENTRATION LEVELS COMPARED TO ALCOHOL AS A BASIS TO ESTIMATE THE MAXIMUM RECOMMENDED DAILY INGESTION OF WHITE WINE

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**Background:** The WHO recommendation for daily alcohol consumption is 40 grs in men and 32 grs in women. For total daily sulfites, the corresponding figure for both sexes is 49 mg. The maximum concentration of sulfites allowed in white wine is 210mg/L. To date, most health professionals recommend a maximum amount of white wine intake based on its alcohol concentration, however, depending on the amount of alcohol and sulfites levels of wine beverages, the maximum recommended amount of wine to be ingested might depend on the sulfite concentration instead of that of alcohol.

**Methods:** One hundred and forty one randomly selected samples of white wine from the quality monitoring process of the 'Condado de Huelva' appellation vineyards (campaign 2006/7) were measured for sulfite concentration levels using the Ripper assay. Each sample was obtained from a different container with at least 500L of wine intended to be bottled for public consumption under the 'young wine' category of the 'Condado de Huelva' appellation, which requests a volume percentage of alcohol between 10-12%, and a maximum 20°C temperature during the aging process.

**Results:** The median of sulfite concentration in the 141 samples was 105mg/L (5-95 percentiles: 66-244mg/L). Assuming a scenario where all daily alcohol ingestion is due to white wine with 12% of alcohol, the recommended maximum ingestion of white wine results in 290mL in women and 363mL in men. The concentration of sulfites in white wine that would provide 49mg of sulfites/day drinking 290mL/day and 363mL/day are 172mg/L and 137mg/L, respectively. Both of such concentrations are below the maximum allowed 210mg/L of sulfites in white wine. 30% of the samples analyzed had sulfites levels above 137mg/L, and 20% above 172mg/L.

**Conclusions:** Sulfites concentrations below the current allowed limit should be taken into account for maximum white wine daily intake recommendation.